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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/791,350	03/01/2004	Anand Ratibhai Patel	2705-266	2398

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EXAMINER

PHAN, RAYMOND NGAN

ART UNIT	PAPER NUMBER
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2111

MAIL DATE	DELIVERY MODE
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06/12/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/791,350

Applicant(s)

PATEL, ANAND RATIBHAI

Examiner

Raymond Phan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Part III DETAILED ACTION

Notice to Applicant(s)

1. This action is responsive to the following communications:
amendment filed on March 28, 2007.
2. This application has been examined. Claims 1-22 are pending.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

4. Claims 1-4, 6, 8, 10-11, 14-18, 20-21 are rejected under 35 U.S.C. § 102(e) as being anticipated by Kagan et al. (US No. 6,243,787).

In regard to claims 1, 8, 10, 14, 18, 20-21, Kagan et al. disclose the system 32 comprising a first port (i.e of the HCA 32) to allow the device to communicate with other devices 25 on the expansion bus (see figure 1, col. 5, lines 30-47); a second port (of the HCA 32) to allow the device to communicate with devices 24 on the second bus (see figure 1, col. 5, lines 11-29); a memory 22 to store data (see figure 1); receive a set of data from the expansion device on the expansion bus in the data path (see col. 6, lines 15-27); receive an interrupt signal intended for the system processor 21 from

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the expansion device on the expansion bus in the command path (see col. 6, lines 33-60) and to prevent the interrupt signal from reaching the system processor in the command path (see col. 7, lines 44-55); transmit a set of data into the transaction queue in the data path to the system processor (see col. 7, lines 13-25); generate an indicator (i.e. the cause) of the completion to indicate the completion of data transmission to the system processor (see col. 6, lines 33-44); insert the indicator into the transaction queue in the data after the set of data (see col. 7, lines 44-56).

In regard to claims 2, 15, Kagan et al. disclose the HCA 32 further comprising a PCI bridge (see col. 5, lines 11-29).

In regard to claims 3, 16, Kagan et al. disclose second bus is a system bus (see col. 5, lines 11-29).

In regard to claims 4, 17, Dobson et al. disclose the second is an expansion bus (see col. 5, lines 54-67).

In regard to claims 6, 11, Kagan et al. disclose the processor to generate an indicator (i.e. dummy read) further the processor to issue a read request to target device (see col. 7, lines 44-56).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 5, 7, 9, 12-13, 19, 22 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kagan et al. in view of Dobson et al. (US No. 6,766,386).

In regard to claims 5, 9, 19, Kagan et al. disclose the claimed subject matter as discussed above rejection except the teaching of indicator of completion comprising the step of generating a transaction addressed to a predetermined area of system memory. However Dobson et al. disclose an indicator of completion comprising the step of generating a transaction addressed to a predetermined area of system memory (see col. 8, lines 11-24). Therefore, it would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have combined the teachings of Dobson et al. within the system of Kagan et al. because it would improve the efficiency of read data transfers between the processor and the target devices on the single transaction.

In regard to claims 7, 12, 22, Dobson et al. disclose the step of transmitting data from the read request to a predetermined address in the system memory (see col. 8, lines 11-39). Therefore, it would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have combined the teachings of Dobson et al. within the system of Kagan et al. because it would improve the efficiency of read data transfers between the processor and the target devices on the single transaction.

In regard to claim 13, Dobson et al. disclose the step of receiving the data from the target device (see col. 8, lines 12-39); receiving the indicator at the predetermined area of memory (see col. 8, lines 12-39); generating interrupt to the initiator (i.e. system processor) in response the indicator (see col. 9, lines 21-29); processing the data from the device 310 (see col. 5, lines 15-35). Therefore, it would have been obvious to a person of an ordinary skill in the art at the time the invention was made to have combined the teachings of Dobson et al. within the system of Kagan et al. because it would

improve the efficiency of read data transfers between the processor and the target devices on the single transaction.

Response to Arguments

7. In view of amendment and remark filed on March 24, 2007, claims 1-22 have been fully considered but they are not deemed to be persuasive.

Applicant(s) point out the amended feature, "...generate an indicator of completion to the system processor...", on page 6, lines 1-2 in the specification, can not be found on page 6, lines 1-2. Applicant(s) are requested to point out exact page(s) and line(s) of the feature.

Applicant(s) argue that ...Kagan fails to teach or suggest indicator of completion to the system processor... (page 7). On the contrary to Applicants' argument, Kagan teach the interrupt packet (i.e. indicator) to the CPU 21 to indicate all data has been received and ready to process (see col. 7, lines 29-38). If all data has not been received, the controller has to wait until all of the data receive (see col. 7, lines 25-38). As the best understood the language of the claim, the indicator of completion to the system processor to indicate the completion of data transmission to the system processor meant the interrupt packet generated by the controller to the processor 21 to indicate the completion of data transmission to the system processor (see col. 7, lines 25-38).

Conclusion

8. All claims are rejected.

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE

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EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Raymond Phan, whose telephone number is (571) 272-3630. The examiner can normally be reached on Monday-Friday from 6:30AM- 4:00PM. The fax phone number for this Group is (571) 273-8300.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [raymond.phan@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 central telephone number is (571) 272-2100.

Raymond Phan
June 4, 2007



Khanh Dang
Primary Examiner